LISTING OF THE CLAIMS:

Claim 1 (Previously Presented): A high tensile strength gray iron alloy, consisting essentially of, as a percentage by weight:

about 4.10% to about 4.25% carbon equivalent;

about 3.5% to about 3.65% carbon;

about 0.4% to about 0.9% manganese;

about 1.5% to about 1.9% silicon;

less than about 0.12% phosphorous;

less than about 0.17% sulfur;

about 0.6% to about 0.8% molybdenum; and

about 0.3% to about 0.6% copper;

with the balance being essentially iron, and said carbon being predominantly present in said metal alloy as free carbon.

Claim 2 (Original): The gray iron alloy of claim 1, wherein said free carbon is predominantly Type A flake graphite.

Claim 3 (Original): The gray iron alloy of claim 1, wherein said amount of carbon is about 3.60%.

Claim 4 (Original): The gray iron alloy of claim 1, wherein said amount of manganese is about 0.60%.

Claim 5 (Original): The gray iron alloy of claim 1, wherein said amount of silicon is about 1.75%.

Claim 6 (Previously Presented): The gray iron alloy of claim 1, wherein said amount of molybdenum is about 0.70%.

Claim 7 (Original): The gray iron alloy of claim 1, wherein said amount of copper is about 0.40%.

Claim 8 (Original): The gray iron alloy of claim 1, further comprising chromium in an amount less than about 0.2%.

Claim 9 (Original): The gray iron alloy of claim 1, further comprising magnesium in an amount less than about 0.005%.

Claim 10 (Original): The gray iron alloy of claim 9, wherein said amount of magnesium is less than about 0.001%.

Claim 11 (Previously Presented): A high tensile strength gray iron alloy, consisting essentially of, by percentage weight:

about 4.10% to about 4.25% carbon equivalent

about 3.5% to about 3.65% carbon;

about 0.4% to about 0.9% manganese;

about 1.5% to about 1.9% silicon;

about 0.6% to about 0.8% molybdenum; and

about 0.3% to about 0.6% copper;

with the balance being essentially all iron except for incidental elements and impurities commonly found in cast iron, and said carbon being predominantly present in said gray iron alloy as free carbon.

Claim 12 (Original): The gray iron alloy of claim 11, wherein said free carbon is predominantly Type A flake graphite.

Claim 13 (Original): The gray iron alloy of claim 11, further comprising phosphorous in an amount less than about 0.12%.

Claim 14 (Original): The gray iron alloy of claim 11, further comprising sulfur in an amount less than about 0.17%.

Claim 15 (Original): The gray iron alloy of claim 11, wherein chromium is present in an amount less than about 0.2%.

Claim 16 (Original): The gray iron alloy of claim 11, further comprising magnesium in an amount less than about 0.005%.

Claim 17 (Original): The gray iron alloy of claim 16, wherein said amount of magnesium is less than about 0.001%.

Claim 18 (Original): A high tensile strength gray iron alloy, consisting essentially of, as a percentage by weight:

about 4.10% to about 4.25% carbon equivalent

about 3.5% to about 3.65% carbon;

about 0.4% to about 0.9% manganese;

about 1.5% to about 1.9% silicon;

less than about 0.12% phosphorous;

less than about 0.17% sulfur;

about 0.6% to about 0.8% molybdenum; and

about 0.3% to about 0.6% copper;

with the balance being essentially iron, and said carbon being predominantly present in said metal alloy as Type A flake graphite.

Claim 19 (Original): A high tensile strength gray iron alloy, consisting essentially of, as a percentage by weight:

about 3.60% carbon;

about 0.60% manganese;

about 1.75% silicon;

less than about 0.12% phosphorous;

less than about 0.17% sulfur;

about 0.7% molybdenum; and

about 0.40% copper;

with the balance being essentially iron, and said carbon being predominantly present in said metal alloy as Type A flake graphite.

Claim 20 (Previously Presented): A high tensile strength gray iron casting having a composition consisting essentially of, as a percentage by weight:

about 4.10% to about 4.25% carbon equivalent

about 3.5% to about 3.65% carbon;

about 0.4% to 0.9% about manganese;

about 1.5% to about 1.9% silicon;

about 0.6% to about 0.8% molybdenum; and

about 0.3% to about 0.6% copper;

with the balance being essentially all iron except for incidental elements and impurities commonly found in cast iron, and said carbon being predominantly present in said gray iron as free carbon.

Claim 21 (Original): The gray iron casting of claim 20, wherein said free carbon is predominantly Type A flake graphite.

Claim 22 (Original): The gray iron casting of claim 20, wherein said amount of carbon is about 3.60%.

Claim 23 (Original): The gray iron casting of claim 20, wherein said amount of manganese is about 0.60%.

Claim 24 (Original): The gray iron casting of claim 20, wherein said amount of silicon is about 1.75%.

Claim 25 (Previously Presented): The gray iron casting of claim 20, wherein said amount of molybdenum is about 0.70%.

Claim 26 (Original): The gray iron casting of claim 20, wherein said amount of copper is about 0.40%.

Claim 27 (Original): The gray iron casting of claim 20, further comprising phosphorous in an amount less than about 0.12%;

Claim 28 (Original): The gray iron casting of claim 20, further comprising sulfur in an amount less than about 0.17%.

Claim 29 (Original): The gray iron casting of claim 20, further comprising chromium in an amount less than about 0.2%.

Claim 30 (Original): The gray iron casting of claim 20, further comprising magnesium in an amount less than about 0.005%.

Claim 31 (Original): The gray iron casting of claim 30, wherein said amount of magnesium is less than about 0.001%.

Claim 32 (Original): The gray iron casting of claim 20, wherein said casting is in the form of a brake drum.

Claim 33 (Original): The gray iron casting of claim 20, wherein said casting is in the form of a brake rotor.

Claim 34 (Previously Presented): A high tensile strength cast gray iron brake drum, said gray iron consisting essentially of, as a percentage by weight:

about 3.60% carbon;

about 0.60% manganese;

about 1.75% silicon;

less than about 0.12% phosphorous;

less than about 0.17% sulfur;

about 0.7% molybdenum; and

about 0.40% copper;

with the balance being essentially iron except for incidental elements and impurities commonly found in cast iron, and said carbon being predominantly present in said gray iron as Type A flake graphite.

Claim 35 (Original): The cast gray iron brake drum of claim 34, further comprising chromium in an amount less than about 0.2%.

Claim 36 (Original): The cast gray iron brake drum of claim 34, further comprising magnesium in an amount less than about 0.005%.

Claim 37 (Original): The cast gray iron brake drum of claim 36, wherein said amount of magnesium is less than about 0.001%.